

Fact Sheet



*For Final Permitting Action Under 45CSR30 and
Title V of the Clean Air Act*

Permit Number: **R30-02900001-2006 (Part 1 of 3)**

Application Received: **12/2/1996**

Plant Identification Number: **029-00001**

Permittee: **~~ISG Weirton Inc.~~ Mittal Steel USA - Weirton, Inc.**

Mailing Address: **400 Three Springs Drive Weirton WV 26062-4989**

Physical Location: Weirton, Hancock County, West Virginia
UTM Coordinates: 533.70 km Easting • 4474.50 km Northing • Zone 17
Directions: State Route 2 to north end of Weirton. Site located on left.

Facility Description

~~ISG Weirton~~ Mittal Steel USA - Weirton, Inc. operates a steel manufacturing facility that includes a Strip Mill, a Tin Mill, a Hydrochloric Acid Regeneration Plant, and Boilers. The facility also includes the following idled operations: Blast Furnaces, Basic Oxygen Plant, Continuous Caster, and Sheet Mill. Strip mill operations include hot strip mill, pickling, and cold rolling. Operations at the sheet mill include tempering and hot dip galvanizing. At the tin mill, tempering and electrolytic plating (zinc, tin and chrome) is performed. Other operations at the facility include boilers, storage tanks, waste water treatment plants and support/maintenance shops. For Title V purposes, the facility operations were divided into three parts: Part 1 includes the Boilers, Part 2 includes the Cold operations, and Part 3 includes the Hot operations. This permit covers Part 1 of the facility.

Emission Unit IDs	Description
087 and 088	HP Boilers 1 and 2
089, 090, and 091	HP Boilers 3, 4, and 5
092 and 093	Foster Wheeler Boilers 101 and 102
	LP Boilers 1, 2, 3, 4, and 15

Facility-Wide Emissions Summary

Plantwide Emissions Summary [Tons per Year]	
Criteria Pollutants	2004 Actual Emissions
Carbon Monoxide (CO)	2479
Nitrogen Oxides (NO _x)	1184
Particulate Matter (PM ₁₀) <i>PM₁₀ is a component of TSP.</i>	1338
Total Particulate Matter (TSP)	2227
Sulfur Dioxide (SO ₂)	1119
Volatile Organic Compounds (VOC)	142
Hazardous Air Pollutants	2004 Actual Emissions
Hydrochloric Acid	3.326
Antimony	0.051
Chlorine	0.507
Chromium	0.053
Hexane	9.174
Manganese	4.372
Methanol	8.701
Nickel	0.296

Some of the above HAPs may be counted as PM or VOCs.

Title V Program Applicability Basis

Due to this facility's potential to emit over 100 tons per year of all criteria pollutants and over 25 tons per year of aggregate HAPs, ~~ISG Weirton Inc.~~ Mittal Steel USA - Weirton, Inc. is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

The sources in Part 1 of the Title V Permit have been found to be subject to the following applicable rules:

Federal and State: 45CSR1	NO _x Budget Trading Program
45CSR2	PM emission limits
45CSR6	Open burning prohibited.
45CSR10	SO ₂ emission limits
45CSR11	Standby plans for emergency episodes.
45CSR13	Construction permits
45CSR30	Operating permit requirement.
45CSR40	Ozone season NO _x control
40 C.F.R. Part 61	Asbestos inspection and removal
40 C.F.R. Part 82, Subpart F	Ozone depleting substances

	40 C.F.R Part 60, Subpart D	NSPS for Boilers
	40 C.F.R. Part 63, subpart DDDDD	MACT for Industrial Boilers
State Only:	45CSR4	No objectionable odors.

Each State and Federally-enforceable condition of the draft Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the draft Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the draft Title V permit as such.

The Secretary's authority to request any pertinent information such as annual emission inventory reporting is provided in WV Code § 22-5-4(a)(14). The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR15, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (<i>if any</i>)
R13-501	29009	CO-SIP-C-2003-28
R13-515	29286	
CO 7-1987	31974	
CO 11-1990	33184	CO-SIP-95-2
CO-SIP-95-2	34707	CO-SIP-C-2003-28
CO-SIP-C-2003-28	37801	

Conditions from this facility's Rule 13 permits governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permits governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table B," which may be downloaded from DAQ's website.

Determinations and Justifications

45CSR2 - All boilers have a design capacity greater than 10 mmbtu/hr and are therefore subject to all sections of Rule 2, except that HP boilers 3, 4, and 5 commenced operation on or before September 1, 1974 and are therefore exempt from Section 4.4 in accordance with Section 4.5.

HP boilers 3, 4, and 5 have a combined capacity of 1,680 mmBtu/hr. To determine the PM weight emission limit, multiply this by 0.09 in accordance with Section 4.1. for a weight emission limit of 151.2 pph for the three boilers. Foster Wheeler boilers 101 and 102 have a combined capacity of 1,050 mmBtu/hr and the weight emission limit would be 94.5 pph. However, the PM limits in permit R13-515 of 11 pph each are more stringent, therefore the Rule 2 limit was streamlined with R13-515.

Section 8.2. requires the company to monitor compliance with the opacity standard as set forth in an approved monitoring plan which has been attached to the permit as Appendix C. Monitoring to determine compliance with the weight emission limits of Section 4.1. for HP Boilers #3, 4, and 5, and R13-515 for Foster Wheeler Boilers #101 and 102 shall be a baseline test performed in accordance with 45CSR§2A-5.2. The baseline test for HP Boilers #3, 4, and 5 was completed in April 2006. The baseline test for Foster Wheeler Boilers #101 and 102 shall be performed upon restarting. Because the boilers burn gaseous or liquid fuels, PM emission

limits are unlikely to be exceeded. Therefore, if the baseline test results show emissions to be less than 20% of the PM limit, no further testing shall be required unless there is a change of fuel.

45CSR10 - All boilers are subject to all parts of Rule 10. HP boilers 3, 4, and 5 have a combined capacity of 1,680 mmBtu/hr. To determine the SO₂ emission limit from Rule 10, multiply this by 3.1 in accordance with Section 3.1.e. for a SO₂ emission limit of 5208 pph for the three boilers. CO-SIP-C-2003-28 requires total fuel firing and sulfur content to be limited to the following: $GPM \leq 91.7 * (1/\% \text{ sulfur})$. This equation was based on 913 pph of SO₂ for fuel oil and 980 pph of SO₂ for fuel oil and blast furnace gas together. The 980 lbs/hour SO₂ emission rate was used in the modeling to demonstrate that the Consent Order limits would result in attainment of the NAAQS and is much more stringent than the Rule 10 SO₂ limit. Therefore, Rule 10 was streamlined with CO-SIP-C-2003-28.

Foster Wheeler boilers 101 and 102 have a combined capacity of 1,050 mmBtu/hr and the SO₂ emission limit is 3255 pph from Rule 10. However, the SO₂ limit of 109.73 pph established in CO-SIP-C-2003-28 is more stringent, therefore the Rule 10 limit was streamlined with the Consent Order limit.

Because the SO₂ emission limits from CO-SIP-C-2003-28 are less than 50% of the Rule 10 emission limit, testing in accordance with 45CSR§10A-5.1.a. is not required. However, the Director retains the authority to require testing at any time.

Section 8.2. requires the company to monitor compliance with Sections 3, 4, and 5 as set forth in an approved monitoring plan which has been attached to the permit as Appendix C. 45CSR§10-8.2.a. allows the Director to require installation of stack gas monitoring devices. The company requires at least 90 days for installation.

45CSR13 - Permit R13-515 authorizes the construction of Foster Wheeler Boilers #101 and #102 and established PM emission limits of 11 pounds per hour from either of the two boilers and 68 tons per year for both boilers. This emission limit is more stringent than the emission limit of 94.5 pph established by Rule 2, therefore the Rule 2 limit was streamlined with the Rule 13 permit limit. Monitoring to determine compliance with the PM emission limits shall be a baseline test performed in accordance with 45CSR§2A-5.2. The boilers burn only natural gas or blast furnace gas, and both are inherently clean burning, therefore, if the baseline test results show emissions to be less than 20% of the PM limit, no further testing shall be required unless there is a change of fuel.

45CSR40 - The facility is required to submit a complete CAIR permit application at least 18 months before the later of January 1, 2009 or the date on which the CAIR NO_x Ozone Season unit commences operation, unless the Secretary approves a later date. At the time the CAIR permit application is received, it shall be attached to the Title V permit and become the CAIR permit portion of the Title V Permit.

Consent Orders - CO 11-1990 authorized PM and SO₂ limits on the HP and LP boilers and was entered in the State Implementation Plan (SIP). However, the SIP was found to be inadequate to attain and maintain the NAAQS for SO₂ and a subsequent, more stringent Consent Order was signed in January 1995. Therefore the SO₂ requirements from CO 11-1990 were not included in the Title V Permit. In addition, the Consent Order established a PM emission limit of 339.4 pph for all boilers, however, in accordance with CO-SIP-C-2003-28, HP Boilers #1 and 2, and all LP Boilers are no longer allowed to be operated. Because CO 11-1990 did not specify allowable PM limits for each HP boiler, it was determined that the PM limit of 151.2 pph for the three HP boilers was more stringent, therefore the CO 11-1990 PM limit was streamlined with Rule 2.

CO-SIP-95-2 authorized more stringent SO₂ emission limits on the HP boilers, restricted the fuel type to the Foster Wheeler boilers and prohibited operation of the LP boilers. This Consent Order was also entered into the SIP. It was determined that more stringent requirements were necessary, therefore CO-SIP-C-2003-28 was developed and the requirements from the January 1995 Consent Order were not included in the Title V Permit.

The August 2003 Consent Order prohibits operation of High Pressure Boilers 1 and 2, and Low Pressure Boilers LP1, LP2, LP3, LP4, and LP15. The consent order also authorizes limits on SO₂ emissions, fuel oil firing rate, fuel oil sulfur content, and that coal shall not be fired in any boiler. Monitoring consists of recording the total number of gallons of fuel fired over every 3-hour block time period and requiring fuel oil analysis to be certified by the fuel supplier, and conducted once per calendar quarter. During negotiations of the Consent Order, the 3-hour block time periods were defined to be 12:00-2:59AM, 3:00-5:59AM, 6:00-8:59AM, 9:00-11:59AM, 12:00-2:59PM, 3:00-5:59PM, 6:00-8:59PM, and 9:00-11:59PM. These requirements were included in the Title V Permit, however the fuel oil analysis shall be required to be performed if there is an increase of the fuel oil sulfur content, not simply a change as stated in the Consent Order.

Section VI.6. of the Consent Order required the company to conduct testing on the Foster Wheeler boilers to determine an emission factor for SO₂ from the combustion of blast furnace gas. The testing was completed in April 2004, therefore the requirement to test was not included in the Title V permit. The resulting emission factor of 14.45 lbs of SO₂ per million cubic feet of gas was included in the permit to be used in calculations to determine compliance.

NSPS Subpart D - Foster Wheeler Boilers 101 and 102 (emission unit IDs 092 and 093) were constructed in 1980, burn natural gas as a primary fuel source, and are rated at 525 mmBtu/hr. Therefore, these boilers are subject to the provisions of 40 CFR 60, Subpart D. Section 60.42(a)(1) requires PM emissions less than 0.10 lb/mmBtu or 105 pph, however R13-515 is more stringent at 11 pph for each boiler. Therefore NSPS subpart D was streamlined with R13-515. Section 60.42(a)(2) requires opacity to be no greater than 20 percent opacity except for one six-minute period per hour of not more than 27 percent opacity, however Rule 2 is more stringent at 10 percent opacity. Therefore, NSPS subpart D was streamlined with Rule 2 for opacity.

Section 60.43 - Standard for Sulfur Dioxide is not applicable because the boilers only burn gaseous fuels.

Section 60.44(a)(1) authorizes a NO_x limit of 210 pph from each boiler and Section 60.45(g) specifies Recordkeeping requirements to demonstrate compliance.

The Foster Wheeler boilers are exempt from Section 60.45(a) requiring continuous opacity monitors in accordance with Section 60.45(b)(1).

MACT Subpart DDDDD - The boilers at Weirton Steel are classified as existing large gaseous fuel units and in accordance with 40 C.F.R. §63.7506(b) are subject only to the initial notification requirements in 40 C.F.R. §63.9(b) and are not subject to the emission limits, work practice standards, performance testing, monitoring, SSMP, site-specific monitoring plans, recordkeeping and reporting requirements of MACT subpart DDDDD or any other requirements in MACT subpart A. The initial notification requirement was completed with a March 11, 2005 Initial Notification letter, therefore no requirements were included in the Title V Permit.

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

45CSR13 - Permit R13-501 authorizes the construction of 2 LP natural gas fired boilers, however Consent Order #8-2003 prohibits the company from operating the LP boilers, therefore the conditions from this permit were not included in the Title V Permit.

CO 7-1987 required testing for the boilers to demonstrate compliance with the Rule 2 limits. Testing was completed, therefore the boiler requirements from this Consent Order were not included in the Title V Permit.

Request for Variances or Alternatives

In a letter dated February 17, 2006, ~~ISG Weirton~~ Mittal Steel USA - Weirton, Inc. requested a variance from the oil burning limit for boilers 3, 4, and 5 as set forth in the August 2003 Consent Order. The Division of Air Quality is preparing to amend the August 2003 Consent Order. Upon completion of the Consent Order

amendment, ~~ISG Weirton~~ Mittal Steel USA - Weirton, Inc. shall submit an application for a significant modification to its Title V Permit to incorporate the amended conditions.

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: April 13, 2006

Ending Date: May 15, 2006

All written comments should be addressed to the following individual and office:

Bobbie Scroggie
Title V Permit Writer
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Point of Contact

Bobbie Scroggie
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1225 • Fax: 304/926-0478

Response to Comments

The following comments were received from the permittee on the fact sheet and draft permit (part 1 of 3) for ~~ISG Weirton Inc.~~ Mittal Steel USA - Weirton, Inc. (DAQ Response in parenthesis)

Revise fact sheet actual emissions table to delete HAPs with de minimis levels. (denied)
Revise fact sheet actual emissions table by updating with 2004 data. (updated)
Define 3-hour block average times for recording total number of gallons of fuel fired. (noted in Fact Sheet)
Process and include requested variance from Consent Order oil burning limit. (variance being processed as Consent Order amendment. Facility required to submit an application for significant modification upon completion.)
Issue all 3 parts of permit on same date. (denied)
Questioned federal enforceability of WV Code and State enforceable only conditions. (denied)
Objected to using "reserved" as a placeholder in the Facility-Wide monitoring Section. (changed to "none")
Clarify 6-minute block average times for opacity readings. (denied, Method 9 already clarifies)
Delete Condition 4.1.7. dealing with concealment of emissions. (denied)
Add/revise Consent Order SO₂ limit for clarification. (denied, variance will clarify limit upon completion)
Clarify that revisions of monitoring plans do not require permit modification. (denied)
Specify that the facility has at least 90 days to install monitoring equipment. (noted in Fact Sheet)
Clarify fuel oil analysis condition. (granted, perform analysis when there is increase in sulfur content, not just

change in sulfur content)

Delete Section 4.6. Compliance Plan because testing was completed. (granted)